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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Philippe Hocquet

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23718

7590

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SCHLUMBERGER OILFIELD SERVICES

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EXAMINER

FULLER, ROBERT EDWARD

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,236	Applicant(s) HOCQUET ET AL.	
	Examiner ROBERT E. FULLER	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-11, 13-19 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species I, subspecies (a) in the reply filed on March 12, 2008 is acknowledged.
2. Claims 6-8 and 12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 12, 2008.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the streamlined profiles mentioned in claims 13 and 18 must be shown or the feature(s) canceled from the claim(s). Also, the embodiment in which the braking shaft and the turbine shaft are disposed in different fluid mediums should be shown in the drawings or that subject matter should be canceled from the claim(s). Currently, it is not clear which embodiment is being shown in Figure 3. Neither does it seem to be very clear from Figure 3 that the braking device is downstream of the turbine. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 1 and 23 are objected to because of the following informalities: The word --A-- should be inserted at the beginning of each of these claims. Appropriate correction is required.
5. Claims 2-19 and 21 are objected to because of the following informalities: These claims should begin with the word --The-- since they are dependent claims. Appropriate correction is required.
6. Claims 14-19 are objected to because of the following informalities: The use of the word "it" makes these claims unclear. Examiner suggests changing "it" to --said hydraulic braking device--. Appropriate correction is required.
7. Claim 22 is objected to because of the following informalities: This claim is dependent on claim 20, which has been cancelled. Also, the word --A-- should be

inserted before "drilling equipment" in line 1, and the word "further" in line 1 should be deleted. Appropriate correction is required.

8. Claims 1-19 and 21-23 are objected to because of the following informalities: The claims contain many instances of "the said..." This is redundant, as only one of these words is necessary, either "the" or "said." Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-19 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the preamble of claim 1, the turbine is recited as being part of the intended use of the hydraulic braking device. In other words, the preamble is structured as if the claim is directed to the subcombination, which is the hydraulic braking device. The preamble is not written as if the claim is directed to the combination of a turbine and a hydraulic braking device. However, in the body of the claim, the turbine shaft, which is part of the turbine, is positively recited. Therefore, the preamble must be amended so that it is clear that the claim is directed to the combination of a turbine and a hydraulic braking device. Appropriate clarification and correction is required.

With regard to claim 22, this claim recites that the drilling equipment further comprises the hydraulic braking device of claim 21. However, claim 21 is not directed to a hydraulic braking device, but rather a turbine. Examiner believes that claim 22

should simply read: --A drilling equipment, further comprising the turbine according to claim 21--.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-5, 9-11, 13-18, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ioanesian et al. (US 3,728,040).

With regard to claim 1, Ioanesian discloses a hydraulic braking device (15) for a turbine (1) in a drilling equipment, said turbine being provided with a turbine shaft (7), wherein the hydraulic braking device comprises at least one body (11, 13) connected to said turbine shaft, and wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium.

With regard to claims 2-5, Ioanesian discloses a braking shaft (the lower half of shaft 7) coupled to the said turbine shaft (the upper half of shaft 7), wherein the body is connected to the braking shaft. The shafts are coaxial, they rotate together and are combined into a single shaft.

With regard to claim 9, the body rotates when the turbine shaft rotates.

With regard to claims 10 and 11, the body is connected to the shaft via a connecting means comprising an anchor zone.

With regard to claim 13, the connecting means has a streamlined profile.

With regard to claims 14-18, the bodies are spaced in a regular manner, have the same axial positions, are identical, have the same dimensions, and are profiled.

With regard to claim 23, Ioanesian discloses a turbine (1) comprising: a turbine shaft (7) and; a hydraulic braking device (15) comprising at least one body (11, 13) connected to said turbine shaft (4); wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium.

13. Claims 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Braun (US 3,547,231).

With regard to claim 23, Braun discloses a turbine (17) comprising: a turbine shaft (49) and; a hydraulic braking device (10) comprising at least one body (66) connected to said turbine shaft (23); wherein when said hydraulic braking device is immersed in a fluid medium, rotation of the turbine shaft about its axis causes a movement of the said at least one body with respect to the said fluid medium, this

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movement generating a resisting torque that is a function of the square of the rotation speed of the turbine shaft with respect to the said fluid medium.

With regard to claim 21, the turbine and braking device are immersed in different fluids.

With regard to claim 22, though Braun does not explicitly state that the turbine is used in equipment for drilling a subterranean well, Brown does state that the turbine could be used in a truck. Trucks are often used in support of drilling operations. In fact, trucks are known to carry mobile coiled tubing drilling rigs (see US 5,271,461 to Decker et al.), therefore they can be considered drilling equipment.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ioanesian et al.

Ioanesian discloses the braking device being upstream of the turbine, rather than downstream. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have arranged to have modified Ioanesian so that the braking device was downstream of the turbine, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references provide further examples of drilling equipment having turbines and brakes.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer H Gay/
Supervisory Patent Examiner, Art
Unit 3676

04/25/2008
REF